

Journal of Loss and Trauma

International Perspectives on Stress & Coping

ISSN: 1532-5024 (Print) 1532-5032 (Online) Journal homepage: <http://www.tandfonline.com/loi/upil20>

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To cite this article: Ian G. Barron , Ghassan Abdallah & Patrick Smith (2013) Randomized Control Trial of a CBT Trauma Recovery Program in Palestinian Schools, Journal of Loss and Trauma, 18:4, 306-321, DOI: [10.1080/15325024.2012.688712](https://doi.org/10.1080/15325024.2012.688712)

To link to this article: <http://dx.doi.org/10.1080/15325024.2012.688712>



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Accepted author version posted online: 11 Jun 2012.



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Randomized Control Trial of a CBT Trauma Recovery Program in Palestinian Schools

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The current study aimed to assess the Teaching Recovery Techniques (TRT) trauma recovery program within the context of ongoing violence. Utilizing a randomized controlled trial, 11–14-year-old students in Nablus, Palestine, were allocated by class to intervention or wait-list control conditions. Standardized measures assessed trauma exposure, posttraumatic stress disorder (PTSD), grief, and depression. Program fidelity and participant experiences were measured by adherence questionnaires and focus groups. Analyses involved paired t-tests, ANCOVAs, and thematic analysis. Intervention students reported significant decreases in PTSD, grief, and depression. Findings indicate that the TRT program has the potential to ameliorate children's trauma symptoms during situations of ongoing violence.

KEYWORDS children, cognitive behavioral therapy, Palestine, psycho-trauma recovery, randomized control trial

Received 13 March 2012; accepted 18 April 2012.

This research was funded in part by the Children and War Foundation. The authors thank Unni Heltne and Patrick Smith from the Children and War Foundation for delivering training in the Teaching Recovery Techniques program and Bill Yule for comments on a previous version.

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Despite children experiencing high levels of trauma within war-torn contexts (Smith, Perrin, Yule, Berima, & Stuvland, 2002), few group-based trauma recovery programs have been delivered and evaluated globally. Where evaluation has occurred, studies have lacked control groups, random allocation, program fidelity measures, or assessments of children's subjective experiences. No study to date has specifically evaluated group-based trauma recovery programs during situations of ongoing violence (Barron & Abdullah, 2011). With a focus on the conflict in Palestine, the current study sought to address this substantial gap in program evaluation.

The West Bank exists as a series of walled enclaves connected by segregated roads. High levels of poverty, poor sanitation, and crumbling health systems are characteristic of social and health conditions (UNICEF, 2011). Children experience a range of cumulative violence including beatings, sniper fire, military incursions, shelling, house demolitions, and detention. One study estimated that over half of the child population (1.4 million) has experienced at least one traumatic war event (Khamis, 2005). Recently, Altawil, Nel, Asker, Samara, and Harrold (2008) found levels of posttraumatic stress disorder (PTSD) in children as high as 58%, suggesting that higher levels of PTSD occur in situations of ongoing violence.

Although most studies focus on identifying the prevalence and severity of PTSD, a range of symptoms have been identified at severe and enduring levels for significant proportions of the child population. These include emotional, behavioral, and peer relationship difficulties; learning difficulties; and somatic symptoms (Al-Krenawi, Graham, & Kanat-Maymon, 2009). Given the extent and degree of psychological morbidity, children's response to ongoing violence may be better understood as complex trauma (Zakrisson, Shahan, Mortaja, & Hamel, 2004).

TRAUMA RECOVERY PROGRAMS

Despite the occupation, the stigma of mental health issues, and Palestinian political conflict restricting program development, a limited range of group interventions have been delivered. As with research globally, few programs have been evaluated, with studies mirroring the same methodological limitations. As a consequence, it has been difficult to conclude whether any specific program has been effective or which aspects of programs are more effective than others (Vostanis, 2004). As all studies have been conducted following the cessation of violence, it is unknown whether programs can have a positive impact for children during conflict.

The impact of programs has been variable. In a non-randomized controlled trial, Thabet, Vostanis, and Karim (2005) found no difference in PTSD and depression for 9–15-year-olds ($N=111$) whether they received a crisis-intervention program, a psychoeducation program, or no intervention.

Loughry, Ager, and Flouri (2006) found mental health gains but only for girls who experienced structured group activities and parent training. More recently, outcomes have been more promising. Thabet, Abu Tawahina, El Sarraj, and Vostanis (2008) reported reductions in anxiety, depression, and troubled behavior among 12–17-year-olds following a psychodrama program; however, methodological limitations included a small sample size and an intervention-only design. Another uncontrolled small-scale study ($N=7$) of 8–12-year-olds in Bethlehem by Zaghrou-Hodali, Alissa, and Dodgson (2008) evaluated the eye movement desensitization reprocessing (EMDR) group protocol. Subjective measures showed that no signs of PTSD were apparent following the intervention.

As yet, no evaluations of group cognitive-behavioral therapy (CBT) programs implemented in Palestine have been published. Beyond Palestine, studies of a skills-based CBT program termed “Teaching Recovery Techniques” (TRT) have been carried out with earthquake survivors in Greece (Giannopolou, Dikaiakou, & Yule, 2006) and Iran (Shooshtary, Panaghi, & Moghadam, 2008) and with adolescent asylum seekers in London (Ehnholt, Smith, & Yule, 2005). While none of the studies evaluated program fidelity, all showed significant reductions in PTSD.

The current study sought to address the lack of evaluation of program effectiveness within a context of ongoing violence, the lack of studies with control groups and program fidelity measures, and the omission of children’s subjective experiences. Specifically, the study sought to utilize a randomized controlled trial to assess the impact of the TRT program in Nablus.

METHODS

Sample Size

Nablus was identified as the location for intervention because of the high levels of ongoing violence (Medecins San Frontieres, 2010). Sample size was determined in advance based on previous studies of this intervention that found medium to large effect sizes of 0.64–0.97 (Giannopolou et al., 2006; Shooshtary et al., 2008). Power analysis indicated that a sample size of 45 per group gives 80% power to detect an effect size of 0.6 (5% alpha, two-tailed). We oversampled to account for anticipated attrition.

Participant Selection and Randomization

Twenty school counselors were trained in TRT and then randomly assigned by the principal researcher (names on cards and blindly selected from a container) to intervention and wait-list control groups. Prior to data collection, one counselor in the intervention group and five from the wait-list dropped

out (all reported trauma symptoms as the reason). The remaining 14 counselors each identified a school class of at least 40 11–13-year-old students. The Children's Revised Impact of Events Scale (CRIES-13; Smith, Perrin, Dyregrov, & Yule, 2003) was administered to the class. The 10 students with the highest CRIES-13 scores in each class were selected for participation in the study. This resulted in 140 students, 90 in the intervention group and 50 in the wait-list. A post hoc sensitivity power analysis showed that this sample size has 80% power (5% alpha, two-tailed) to detect an effect size of 0.5.

In the intervention group, the average age was 11.09 (range = 11 to 14 years, $SD = 1.19$), including 48 males and 35 females. In the wait-list the average age was 11.06 (range = 11 to 13 years, $SD = 0.70$), with 25 of each gender. All were Palestinian. Schools were public male, public female, United Nations Relief and Works Agency female, and private mixed gender.

The Program

The Arabic translation of the TRT program was used (Smith, Dyregrov, & Yule, 2008). This cognitive-behavioral program includes five sessions that focus on normalizing trauma and strategies for intrusive memories, hyperarousal, and avoidance symptoms of PTSD. The fifth session focuses on children's response to loss. Sessions were delivered over 5 consecutive weeks. Each session lasted 1 hour and 30 minutes. Two counselors were present during program delivery, one to present and the other to observe. Counselors received 3 days of training in program delivery by two expert trainers from the Children and War Foundation covering program values, content, and processes. Training methods included information giving, modeling, experiential learning, reflection, and feedback.

Procedure

A randomized controlled trial design was utilized. The program was delivered to students in the intervention group during social education lessons. The wait-list received the usual school health education curriculum (health and social issues). Research Ethics Committee approval was given by the University of Dundee, requiring active informed consent by students, parents, and teachers. The CRIES-13 questionnaire was used to screen for PTSD and was administered 1 month prior to program delivery. All other pre-test measures were delivered 2 weeks prior to the program. All post-test questionnaires were delivered 2 weeks following program delivery. Questionnaires and student and counselor subjective experience responses were translated into Arabic by one experienced Palestinian interpreter and then blind back-translated (Bracken & Barona, 1991) into English by another. These versions were checked by the English-speaking researcher for inconsistencies, and final versions were produced by the original Arabic translator. After being

translated into English, student and counselor subjective experience responses were adapted. The adapted version was checked by the English-speaking researcher with suggestions to standardize occasional phrases not used in the English language. Students in the wait-list received the program following the completion of the evaluation.

Measures

A battery of standardized self-report measures from previous efficacy studies were used to assess the extent of student PTSD (CRIES-13), depression (Depression Self-rating Scale for Children [DSRS]; Birlleson, 1981), traumatic grief (Traumatic Grief Inventory for Children [TGIC]; Dyregrov et al., 2001), and impact on school performance (Impact on School Performance Scale [ISPS]; Yule & Dyregrov, 2005). The Strength and Difficulties Questionnaire (SDQ; Goodman, 1997) provided a comparison between student, parent, and teacher perceptions of mental health, and the Exposure to War Stressors Questionnaire (EWSQ; Smith et al., 2002) gave a measure of traumatic event exposure.

The CRIES-13 measures symptoms of intrusion, avoidance, and arousal (13 items on a 4-point scale [not at all, rarely, sometimes, often]); the instrument has a Cronbach alpha coefficient of .80, showing good internal consistency (Smith et al., 2003). A cut-off of 17 or more (indicating the probability of PTSD) on the intrusion/avoidance subscales (8 items) was used for screening. The DSRS measures the extent of children's depressive symptoms (18 items on a 3-point scale [most, sometimes, never]). A cut-off of 15 or more, indicating the probability of a depressive disorder, was used (Birlleson, Hudson, Grey-Buchanan, & Wolff, 1987). A range of moderate to high internal consistency has been found across a number of child and adolescent studies (Ivarsson, Gillberg, Arvidsson, & Broberg, 2002).

The TGIC measures the extent of children's feelings, thoughts, and behaviors of traumatic grief over 23 questions on a 5-point scale. The ISPS was developed to address teachers' need for a measure of the effect of traumatic experiences on school performance. Seventeen items on a 4-point scale (not at all, rarely, sometimes, often) include the themes of motivation, concentration, memory, and learning attainment. As reliability has yet to be established, the ISPS and TGIC should be viewed as experimental.

The SDQ comprises 5 scales (children's emotionality, hyperactivity, relationship problems, behavior difficulties, and prosocial behavior), each with five items on a 3-point scale (not true, somewhat true, certainly true). Five of the items are reverse scored. Total SDQ scores (excluding the prosocial scale) are classified as normal (0–15), borderline (16–19), and abnormal (20–40), indicating different degrees of mental health disorders. Questionnaires are completed by parents (SDQP), teachers (SDQT), and students (SDQS). Finally, an adapted version of the EWSQ was utilized where Question 1 (family member fighting on front line) and Question 8 (family member in

concentration camp) were omitted. This better matched the context of military occupation rather than war. Yes/no responses are required, with total scores ranging from 0 to 26.

The reliability of the battery of translated measures was mostly high, with Cronbach alpha coefficients as follows: CRIES-13 (.93), EWSQ (.94), TGIC (.91), ISPS (.88), and SDQS (.82). The alpha coefficient for the DSRS was .64. The low alpha coefficients of .19 and .46 for the SDQT and SDQP, respectively, raise doubts about the reliability of the results on these measures, and they were therefore excluded from any further analyses.

Students' subjective experience of program delivery was assessed through a random sample focus group of 10 students stratified by gender. Counselors' subjective experience was assessed through a focus group of the nine intervention group counselors. Focus groups were held in classrooms and lasted 1 hour each. Questions replicated a Gazan study (Barron & Abdullah, 2011) covering what students and counselors liked/disliked about the program, what they learned, benefits, and any negative consequences for students or counselors. The focus groups were facilitated by one research assistant while a second recorded responses verbatim.

Program fidelity was assessed by counselors and observers ($n = 18$) completing a fidelity questionnaire following program delivery. Questions covered adherence to the number of sessions, session structure and content, the process of delivery, and the extent and reason for program adaptation. Counselors and observers were asked to subjectively rate the following counselor presentation skills as percentages: quality of interactions, enthusiasm, and positivity.

Analysis

All normative measures and subscales were analyzed using paired *t*-tests (pre/post-test) and analysis of covariance comparing intervention and wait-list groups. As numbers were small for multilevel modeling, the Tukey HSD (honestly significance difference) test was used in conjunction with ANOVA to check for differences between classes. Analysis of focus groups and program fidelity questionnaire data involved an adapted six-step systematic thematic analysis (Braun & Clarke, 2006). Steps in the process involved familiarization with the data, generating initial codes, the search for themes, rank ordering of initial codes, reviewing and naming of themes, and drafting the report.

RESULTS

Pre-Intervention Exposure to War Stressors

Seven intervention students were omitted due to incomplete pre-test data (see Figure 1). No significant difference was found between the intervention

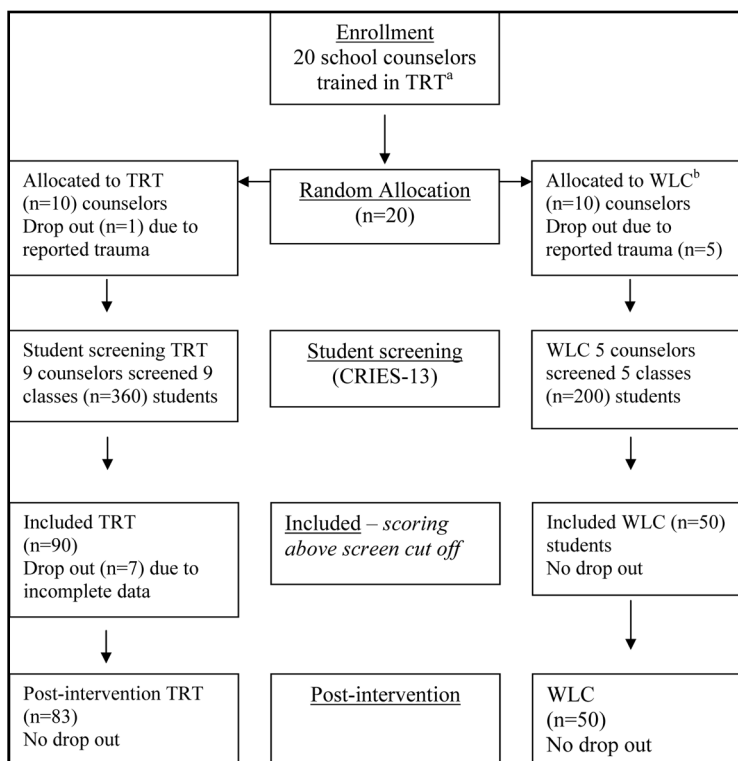


FIGURE 1 Participant progress flow chart. ^aTRT = Teaching Recovery Techniques. ^bWLC = wait-list control.

and wait-list groups in terms of frequency of exposure. In the intervention group, the average number of stressors was 13.49 ($SD = 7.19$), with one class experiencing significantly more traumatic events (20.5; $p < .05$). The most frequently reported events were experiencing close shelling (79%), seeing a dead body (78.3%), family member injured (77.1%), and seeing someone killed (74%). In the wait-list the average was 12.66 ($SD = 3.19$). The most frequently reported events were seeing someone sexually assaulted (100%), seeing someone tortured (92%), in basement for long time (84%), and seeing a dead body (84%). No gender, $F(1, 131) = 0.698, p = .405$, or age differences, $F(3, 129) = 1.585, p = .196$, were found. Students experienced no further events during program delivery.

Pre-Intervention Symptom Levels

The high exposure class showed higher symptoms levels (Tukey HSD, $p < .05$) across three of the nine self-report measures (CRIES-13, TGIC, ISPS). A comparison between the intervention and wait-list groups at pre-test showed significantly higher levels of posttraumatic stress, negative school

impact, and mental health difficulties in the intervention group ($p < .05$), regardless of inclusion or exclusion of the high exposure class in the analysis. Levels of traumatic grief and depression were matched across both groups.

Post-Intervention Symptom Levels

Because of the significant variance between the intervention and wait-list groups at pre-test, ANCOVA was used to analyze the between-groups post-test data, controlling for initial symptom severity. Significant reductions in posttraumatic stress, depression, traumatic grief, negative school impact, and mental health difficulties were found in intervention group students compared to the wait-list group. In relation to the specific diagnostic criteria for PTSD (intrusion and avoidance subscales, 8 items only), 53 students (63.9%) in the intervention group were above the cutoff for diagnosis prior to the program, compared to 28 students (33.7%) following the intervention. No significant difference occurred in the wait-list, that is, pre-test ($n = 25$; 50%) to post-test ($n = 22$; 44%). Figure 2 displays this relationship of mean PTSD scores (8 items) across groups over time.

Using Rosenthal's (1991) correlated-design effect size to account for sample variance between groups, large effect sizes were found for program impact on reducing PTSD ($d = 0.76$), depression ($d = 1.24$), mental health

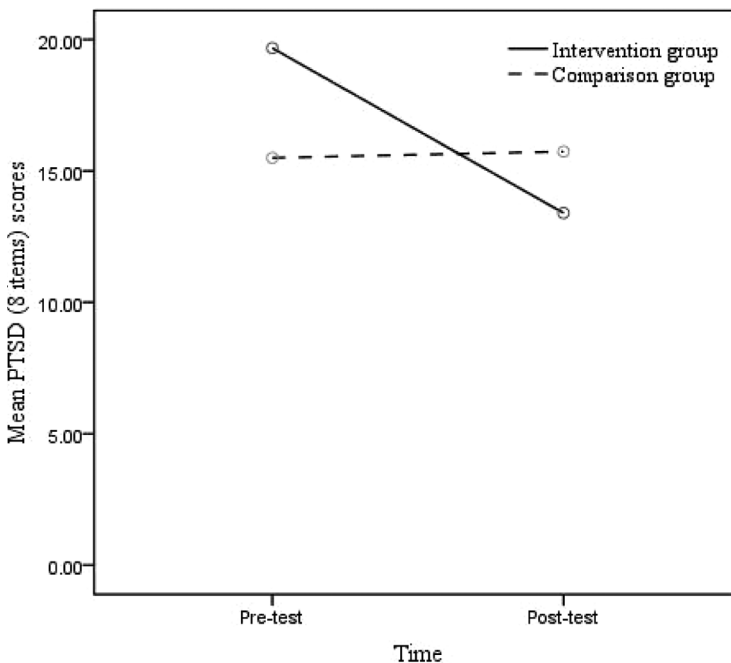


FIGURE 2 Mean PTSD scores across groups.

difficulties ($d=0.90$), and traumatic grief ($d=0.96$), and a small effect size was found for reducing the impact of trauma on school performance ($d=0.35$). Significant reductions were found across all student self-report measures between pre- and post-test scores for the intervention group ($p<.005$). In the wait-list, small mean reductions of 0.18 and 0.24 were reported for traumatic grief and mental health difficulties (SDQS), respectively.

Moderating Factors

No significant differences were found for student age, counselor gender, or school type across all measures. Girls reported significantly higher levels of traumatic grief at pre-test, $F(1, 81) = 5.995$, $p = .017$, and post-test, $F(1, 81) = 5.105$, $p = .027$.

Subjective Experiences

STUDENTS

Students' experiences were very positive. "Included and sharing experiences" summarized what students liked best, that is, 8 codes from 18 statements (8:18). Students felt "comfortable, part of the group and cooperated with others." Prior to the program students experienced "fear and anxiety" (6:12) (e.g., "I was anxious before participation"). After the program, students' emotions "stabilized" (5:12) (e.g., "relaxed and hopeful about the future"). Students reported their main learning was "improved social communication" (10:16) (e.g., "I learned how to listen and participate"). The most frequent code was learning how to cooperate (5 occurrences), along with subskills of communication: "self-awareness, listening, trust, self-responsibility, and sharing experiences and the inclusion of others." "Positive behavior change" (6:11) described what students thought others noticed about them (e.g. "My family, teacher, and friends noticed my better behavior"). Codes about "feeling secure at home" and "less nightmares" were positive but did not fit this theme. Students disliked "nothing" about the program (1:6) but wanted "more sessions" (1:4).

COUNSELORS

"Quality program" summarized what counselors liked best (7:14). Codes included "working with reputable organizations, appreciating new skills, a developmentally appropriate program, and a collegial context," all experienced as motivating. Due to concerns about parental/student reactions, counselors experienced "anticipatory anxiety" (1:5) prior to the program. Following delivery, counselors felt "happy and proud" (5:13). The theme

“skill development” covered counselor learning, including “group facilitation skills, trauma recovery techniques, and enabling students to share” (5:12). Counselors’ affirming student reports noted a “positive behavior change” in students (2:5) in school. “Nothing” was disliked about the program. Codes referred to the need for “more training for counselors” and the opportunity to “repeat the program” (5:11).

Program Fidelity

Counselors reported that 94% of objectives were achieved and 79% of guidelines were followed. In contrast, observers reported 60% and 74%, respectively. Counselors and observers were similar in their rating of presentation skills: quality of interactions (74% and 73%, respectively), enthusiasm (77% and 73%), time on task (76 and 73%), and time activities focused on outcomes (77% and 75%). The length of time sessions were adapted was 22% and 27% and mostly fit theoretical guidelines (77% and 71%). Reasons for adaptation included students “not talking” (16 statements) because of the following: student characteristics (e.g., “shy,” “difficulty expressing emotional material”), relationship factors (e.g., “trust”), distractions (e.g., “scared missing classes”), counselor factors (e.g., “unwell”), and students’ behavior triggered by the material. Adaptations were of four types: supporting students’ understanding (e.g., “explaining activities/giving more examples”), encouraging students to talk, responding to students’ experience (e.g., “listening carefully”), and managing time within sessions (e.g., “shortening breaks and activities”).

DISCUSSION

Exposure to War Stressors

The current study sought to explore the effectiveness of the TRT program during a context of ongoing violence. Similar to the situation in other war-context studies (Smith et al., 2002), students in Nablus experience high levels of exposure to a wide range of military and domestic violence. In contrast to a previous meta-analysis suggesting that girls on average experience fewer traumatic events (Tolin & Foa, 2006), the current study found no sex difference. It may be that the accumulation of traumatic events within long-standing violence results in diminished gender differences.

Posttraumatic Stress

At screening, the probability of a diagnosis of PTSD covered nearly 60% of the sample, a finding that matches recent studies in Palestine (Altawil et al., 2008) indicating increasingly higher levels of PTSD in the child population

as the violence continues. Counter to Tolin and Foa's (2006) meta-analysis suggesting girls on average experience higher PTSD levels, the current study again found no sex difference. It may be that within situations of pervasive and indiscriminate violence, gender differences lessen. In terms of the intervention, the TRT program led to nearly a 50% reduction in students' likelihood of suffering from PTSD, with significant gains across all three symptom domains. It appears the TRT program has the potential to reverse the apparent increasing trend of PTSD despite continuing violence.

Depression

Clinically significant depressive symptoms are pervasive in the Nablus school population. In the longer term, such children may have a heightened risk of suicide, drug misuse, and relationship difficulties (Weissman, 1999). Although not a current study finding, Giacaman, Shannon, Saab, Arya, and Boyce (2007) found higher levels of depressive symptoms in West Bank girls. The TRT program led to a significant reduction in student depression (84.3% to 25.3%). It is notable that improvements in depressive symptoms occurred despite the TRT intervention comprising only trauma-focused treatment components. This implies that depressive symptoms were likely to be secondary to PTSD symptoms.

Traumatic Grief

Traumatic grief, a relatively new concept (Cohen & Mannarino, 2004), is pervasive at clinically significant levels within the Nablus student population. Of further concern is that traumatic grief in childhood can lead to longer-term mental health issues, particularly where violence continues (Worden, 1996). Gender studies are rare; however, similar to Worden (1996), girls showed higher symptom levels. Promisingly, the TRT program led to a substantial reduction in traumatic grief for both genders. Such gains need to be evaluated over time to assess program impact on children's resilience for future traumatic events.

School Performance

As with previous studies in Palestine, high numbers of students experienced difficulties with motivation and learning. Positively, intervention students perceived educational gains, suggesting the program had an impact on improving student perception of learning capacity. More broadly, Punamaki (2002) suggests school-based protective factors may contribute to the development of student resilience across a range of developmental domains. Future research needs to explore the extent to which programs such as TRT enable the development of school protective factors and aid the generalization of developmental gains both during and following conflict.

Subjective Experiences

Students reported they felt included and appreciated the opportunity to share experiences. Prior to the program students experienced fear and anxiety; however, feelings stabilized afterwards, leading to hope for the future. This is remarkable given there was no change in context. Students and counselors reported student gains in a range of social communication behaviors, but they also identified students who needed further sessions because of past and ongoing trauma. This is an important issue in terms of intervention, maintenance of gains, and resilience building.

The quality of the program and supporting organizations appears to have been tangible for counselors. The experience of delivering the program was supportive and empowering, including gaining knowledge and skills. Specifically, counselors learned group listening and facilitation skills, trauma recovery techniques, and how to enable students to share experiences. Anticipatory anxiety dissipated following program delivery. It appears networking with international agencies and training and delivery in the TRT program can empower school counselors despite the ongoing violence. The impact of such factors needs to be included in future program evaluation.

Program Fidelity

Counselors reported that program protocols were followed to high levels, whereas observers reported just over half the objectives were achieved and three quarters of the guidelines followed. The latter finding may be significant in terms of impacting student outcomes (Durlak, 1997). Counselors and observers were similar in their assessment of the quality of counselor presentation skills, with ratings over 70%, indicating fairly high levels of adherence. Dane and Schneider (1998), however, stress the importance of emotional tone and communicative context in program fidelity, which suggests that these may be possible areas for improving future delivery. Counselors adapted delivery for a number of reasons—mostly to do with students' capacity to receive the program as a consequence of cumulative traumatic experiences (e.g., difficulties in concentration). While counselor adaptations such as further explanations may have impacted program effectiveness, Durlak and Ferrari (1998) argue for balance in program adherence, including responding to changing circumstances.

Limitations

The counselor-based randomization with its small sample size may not have fully identified all of the significant effects. The attrition rate for wait-list counselors in particular highlights the challenge of conducting research in war zones; for example, the delay in program delivery may have affected

some counselors' commitment. The higher pre-test scores for the intervention group, partly due to the high-exposure class, imply that the randomization procedures were not optimal, and thus the results must be interpreted with some caution. Because of the low alpha coefficients of the SDQ questionnaires, doubts exist as to the reliability of parent and teacher perceptions and subsequent comparisons with student self-report measures. While significant results were observed, there was no follow-up or longitudinal evaluation to measure the maintenance of gains over time. Had funding permitted, evaluation of wait-list program experiences would have been useful. Finally, verbatim recording of focus groups, retrospective reports of program fidelity, and translation of data were all prone to bias.

Conclusions

This was the first study to evaluate the efficacy a group-based trauma recovery program during a context of ongoing violence utilizing a randomized controlled trial with a program fidelity measure and an assessment of children's subjective experiences. The study found that a substantial proportion of students in Nablus experience high levels of exposure to war events, causing excessive levels of distress and pervasive mental health, educational, and relationship problems. The TRT program was effective and efficient in reducing PTSD, depression, and traumatic grief for a significant number of students. Within contexts of ongoing violence, however, most students need longer-running programs to further reduce symptoms. The assessment of students' subjective experiences identified useful information for program developers and researchers, including a range of social-emotional gains, program shortcomings, and recommendations for program delivery. Program fidelity measures turn out to be particularly important in contexts of ongoing violence where an accumulation of trauma appears to impact some students' ability to receive the program, necessitating program adaptation.

REFERENCES

- Al-Krenawi, A., Graham, J., & Kanat-Maymon, Y. (2009). Analysis of trauma exposure, symptomatology and functioning in Jewish Israeli and Palestinian adolescents. *British Journal of Psychiatry*, *195*, 427–432.
- Altawil, M., Nel, P., Asker, A., Samara, M., & Harrold, D. (2008). The effects of chronic war trauma among Palestinian children. In M. Parsons (Ed.), *Children: The invisible victims of war—An interdisciplinary study* (pp. 1–21). Peterborough, England: DSM Technical Publications Ltd.
- Barron, I., & Abdullah, G. (2011). Evaluation of the efficacy of a group-based trauma recovery program in Gaza: Students' subjective experience. *Journal of Trauma and Loss: International Perspectives on Stress and Coping*. Retrieved from <http://www.tandfonline.com/doi/abs/10.1080/15325024.2011.616733>

- Birleson, P. (1981). The validity of depressive disorder in childhood and the development of a self-rating scale: A research report. *Journal of Child Psychology and Psychiatry, 22*, 73–88.
- Birleson, P., Hudson, I., Grey-Buchanan, D., & Wolff, S. (1987). Clinical evaluation of a self-rating scale for depressive disorder in childhood (Depression Self-Rating Scale). *Journal of Child Psychology and Psychiatry, 28*, 43–60.
- Bracken, B., & Barona, A. (1991). State of the art procedures for translating, validating, and using psycho-educational tests in cross cultural assessment. *School Psychology International, 12*, 119–132.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology: Qualitative. *Research in Psychology, 3*, 77–101.
- Cohen, J., & Mannarino, A. (2004). Treatment of childhood traumatic grief. *Journal of Clinical Child and Adolescent Psychology, 33*, 819–831.
- Dane, A., & Schneider, B. (1998). Program integrity in primary and early secondary prevention: Are implementation effects out of control? *Clinical Psychology Review, 1*, 23–45.
- Durlak, J. (1997). *Successful prevention programs for children and adolescents*. New York, NY: Plenum.
- Durlak, J., & Ferrari, J. (1998). *Program implementation in preventive trials*. Philadelphia, PA: Haworth Press.
- Dyregrov, A., Yule, W., Smith, P., Perrin, S., Gjestad, R., & Prigerson, H. (2001). *Traumatic Grief Inventory for Children (TGIC)*. Retrieved from <http://www.childrenandwar.org/>
- Ehnholt, K., Smith, P., & Yule, W. (2005). School-based cognitive-behavioral therapy group intervention for refugee children who have experienced war-related trauma. *Clinical Child Psychology and Psychiatry, 10*, 235–250.
- Giacaman, R., Shannon, H., Saab, H., Arya, N., & Boyce, W. (2007). Individual and collective exposure to political violence: Palestinian adolescents coping with conflict. *European Journal of Public Health, 17*, 361–368.
- Giannopoulou, I., Dikaiakou, A., & Yule, W. (2006). Cognitive-behavioral group intervention for PTSD symptoms in children following the Athens 1999 earthquake: A pilot study. *Clinical Child Psychology and Psychiatry, 11*, 543–553.
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. *Journal of Child Psychology and Psychiatry, 38*, 581–586.
- Ivarsson, T., Gillberg, C., Arvidsson, T., & Broberg, A. (2002). The Youth Self-Report and the Depression Self-Rating Scale as measures of depression and suicidality among adolescents. *European Child and Adolescent Psychiatry, 11*, 31–37.
- Khamis, V. (2005). Post-traumatic stress disorder among school age Palestinian children. *Child Abuse and Neglect, 29*, 81–95.
- Loughry, M., Ager, A., & Flouri, E. (2006). The impact of structured activities among Palestinian children in a time of conflict. *Journal of Child Psychology and Psychiatry, 47*, 1211–1218.
- Medecins San Frontieres. (2010). *Palestinian territories—Nablus: “Constant and unpredictable violence.”* Retrieved from <http://www.msf-me.org/en/news/news-media/news-press-releases/palestinian-territories-nablus-constant-andunpredictableviolence-1.html>

- Punamaki, R.-L. (2002). The uninvited guest of war enters childhood: Developmental and personality aspects of war and military violence. *Traumatology*, 8, 24–63.
- Rosenthal, R. (1991). *Meta-analytic procedures for social research*. Newbury Park, CA: Sage.
- Shooshtary, M., Panaghi, L., & Moghadam, J. (2008). Outcome of cognitive behavioral therapy in adolescents after natural disaster. *Journal of Adolescent Health*, 42, 466–472.
- Smith, P., Dyregrov, A., & Yule, W. (2008). *Children and disasters: Teaching recovery techniques*. Bergen, Norway: Children and War Foundation.
- Smith, P., Perrin, S., Dyregrov, A., & Yule, W. (2003). Principal components analysis of the Impact of Event Scale with children in war. *Personality and Individual Differences*, 34, 315–322.
- Smith, P., Perrin, S., Yule, W., Berima, H., & Stuvland, R. (2002). War exposure among children from Bosnia-Herzegovina: Psychological adjustment in a community sample. *Journal of Traumatic Stress*, 15, 147–156.
- Thabet, A., Abu Tawahina, A., El Sarraj, E., & Vostanis, P. (2008). *Effectiveness of school-based psychodrama in improving mental health of Palestinian adolescents*. Gaza, Palestine: Gaza Community Mental Health Program.
- Thabet, A., Vostanis, P., & Karim, K. (2005). Group crisis intervention for children during ongoing war conflict. *European Child and Adolescent Psychiatry*, 14, 262–269.
- Tolin, D., & Foa, E. (2006). Sex differences in trauma and posttraumatic stress disorder: A quantitative review of 25 years of research. *Psychological Bulletin*, 32, 959–992.
- UNICEF. (2011). *Adolescence: An age of opportunity*. New York, NY: Author.
- Vostanis, P. (2004). The impact, psychological sequelae and management of trauma affecting children. *Current Opinion in Psychiatry*, 17, 269–273.
- Weissman, M., Wolk, S., Goldstein, R., Moreau, D., Adams, P., Greenwald, S., ... Wickrmaratne, P. (1999). Depressed adolescents grown up. *Journal of the American Medical Association*, 281, 1701–1713.
- Worden, J. (1996). *Children and grief: When a parent dies*. New York, NY: Guilford Press.
- Yule, W., & Dyregrov, A. (2005). *Impact on School Performance Scale (ISPS)*. Retrieved from <http://www.childrenandwar.org/>
- Zahrout-Hodali, M., Alissa, F., & Dodgson, P. (2008). Building resilience and dismantling fear: EMDR group protocol with children in an area of ongoing trauma. *Journal of EMDR Practice and Research*, 2, 106–113.
- Zakrisson, T., Shahen, A., Mortaja, S., & Hamel, P. (2004). The prevalence of psychological morbidity in West Bank Palestinian children. *Canadian Journal of Psychiatry*, 49, 60–63.

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